

What is claimed is:

1. In a mobile phone, a method for searching a directory comprising a plurality of numbers to associate a received number with a stored directory entry, the method comprising:
  - a) receiving a number, the received number being defined by a plurality of digits;
  - b) selecting a rightmost digit of the received number as a current comparison digit;
  - c) comparing the current comparison digit with a corresponding digit of each of a plurality of numbers stored in the directory;
  - d) ending the search, if no matching digits are identified;
  - e) selecting, as a current comparison digit, a digit to the immediate left of a previous current comparison digit; and
  - f) repeating steps c through e, until a predetermined number of digits of the received number have been compared against the plurality of numbers stored in the directory.
2. The method of claim 1, wherein the predetermined number of digits comprises all of the digits of the received number.
3. The method of claim 1, wherein the directory is stored in a memory in the mobile phone.
4. The method of claim 1, wherein the directory is stored in a memory carried on a substrate that may be readily decoupled from the mobile phone.

5. The method of claim 1, further comprising displaying a directory entry associated with any matching numbers found in the directory.

6. The method of claim 1, wherein the comparing more specifically compares the current comparison digit as a character value.

7. The method of claim 1, wherein the comparing more specifically compares the current comparison digit as an integer value.

8. The method of claim 1, further including left filling digits of numbers stored in directory with default values, for the numbers stored in the directory that have fewer digits than the received number.

9. In a mobile phone, a method for searching a directory comprising a plurality of numbers to associate a received number with a stored directory entry, the method comprising:

- a) receiving a number, the received number being defined by a plurality of segments;
- b) selecting a rightmost segment of the received number as a current comparison segment;
- c) comparing the current comparison segment with a corresponding segment of each of a plurality of numbers stored in the directory;
- d) ending the search, if no matching segments are identified;
- e) selecting, as a current comparison segment, a segment to the immediate left of a previous current comparison segment; and

- f) repeating steps c through e, until a predetermined number of segments of the received number have been compared against the plurality of numbers stored in the directory.

10. The method of claim 9, wherein the predetermined number of segments comprises all segments of the received number.

11. The method of claim 9, further including left filling segments of numbers stored in directory with default values, for the numbers stored in the directory that have fewer segments than the received number.

12. The method of claim 9, further comprising displaying a directory entry associated with any matching numbers found in the directory.

13. The method of claim 9, wherein the step of receiving the number comprises receiving the number through a caller identification feature.

14. The method of claim 9, wherein the plurality of segments comprise a mobile country code (MCC) segment, a mobile network code (MNC) segment, and a mobile subscriber identification number (MSIN) segment, wherein the MSIN segment is the rightmost segment.

15. The method of claim 14, wherein the mobile phone includes a default value for the MCC segment and a default value for the MNC segment, and these default values are used as a part of the received number, if values for the MCC and MNC segments are not supplied with the received number.

16. The method of claim 14, wherein the mobile phone includes a default value for the MCC segment and a default value for the MNC segment, and these stored default values are used as a part of the stored numbers, for stored numbers that do not include stored values for the MCC and MNC segments

17. The method of claim 9, wherein the plurality of segments comprise a country code (CC) segment, a national destination code (NDC) segment, and a subscriber number (SN) segment, wherein the SN segment is the rightmost segment.

18. The method of claim 9, wherein a segment comprises a plurality of digits.

19. The method of claim 9, wherein a segment comprises a single digit.

20. The method of claim 9, wherein the comparison of step c is made by comparing the segments as character strings.

21. The method of claim 9, further comprising converting the current comparison segment to an integer value, wherein the comparison of step c is made by comparing the integer value with a corresponding value of a segment of each of the plurality of numbers stored in the directory.

22. A method of comparing a received number with a plurality of numbers stored in a directory coupled to a phone comprising comparing digits of the received number with digits of the stored numbers in a generally right to left direction; and discarding or ignoring comparisons stored numbers having digits that do not match the corresponding digits of the received number.

23. A method of storing a number in a directory for a mobile phone comprising:

directing a number to be stored in a directory to be associated with the mobile phone, the number comprising a base number and at least one prefix extension;

comparing a first prefix extension with a first corresponding default prefix extension; and

if the comparison of the first prefix extension and first default prefix extension indicates a match, then storing the base number in the directory, but not storing the first prefix extension in the directory.

24. The method of claim 23, further comprising:

comparing a second prefix extension with a second corresponding default prefix extension;

if the comparison of the second prefix extension and second default prefix extension indicates a match, then storing the base number in the directory, but not storing the second prefix extension in the directory.

25. The method of claim 23, wherein the directory is stored in a memory in the mobile phone.

26. The method of claim 23, wherein the directory is stored in a memory carried on a substrate that may be readily decoupled from the mobile phone.

27. The method of claim 26, wherein the substrated is a SIM card.

28. A mobile phone comprising:

receive logic to receive a number;

select logic to select a rightmost digit of the received number as a current comparison digit;

compare logic configured to compare the current comparison digit with a corresponding digit of each of a plurality of numbers stored in a directory;

revised selection logic configured to select, as a current comparison digit, a digit to the immediate left of a previous current comparison digit; and

control logic to control the compare logic to compare up to all digits of the received number with corresponding digits of a plurality of numbers stored in the

directory, the control logic configured to terminate the comparison when either a matching number is identified or it is concluded that no number of the plurality of numbers matches the received number.

29. The mobile phone of claim 28, further comprising logic to display a directory entry associated with any matching numbers found in the directory.

30. The mobile phone of claim 28, wherein the compare logic is more specifically configured to compare the current comparison digit as a character value.

31. The mobile phone of claim 28, wherein the compare logic is more specifically configured to compare the current comparison digit as an integer value.

32. The mobile phone of claim 28, further including logic to left-fill digits of numbers stored in directory with default values, for the numbers stored in the directory that have fewer digits than the received number.

33. A mobile phone comprising:  
logic to store a number in a directory associated with the mobile phone, the number comprising a base number and at least one prefix extension;  
logic to compare a first prefix extension with a first corresponding default prefix extension; and  
logic, responsive to a match determined by the compare logic, to store the base number in the directory, but not store the first prefix extension in the directory.

34. A mobile phone comprising:  
receive logic to receive a number, the received number defined by a plurality of segments; and

compare logic to compare the received number with a plurality of numbers stored in the directory on a segment by segment basis, beginning with the rightmost segment and moving leftward, until either a match is identified, or until each of the plurality of stored numbers is excluded from being a match to the received number.

35. The mobile phone of claim 34, further comprising logic to display a directory entry associated with any matching numbers found in the directory.

36. The mobile phone of claim 34, wherein the receive logic is configured to receive the number through a caller identification feature.

37. The mobile phone of claim 34, wherein the plurality of segments comprise a mobile country code (MCC) segment, a mobile network code (MNC) segment, and a mobile subscriber identification number (MSIN) segment, wherein the MSIN segment is the rightmost segment.

38. The mobile phone of claim 37, further including a stored default value for the MCC segment and a stored default value for the MNC segment, and these stored default values are used as a part of the received number, if values for the MCC and MNC segments are not supplied with the received number.



39. The mobile phone of claim 37, further including a stored default value for the MCC segment and a stored default value for the MNC segment, and these stored default values are used as a part of the stored numbers, for stored numbers that do not include stored values for the MCC and MNC segments.

40. The mobile phone of claim 34, wherein the plurality of segments comprise a country code (CC) segment, a national destination code (NDC) segment, and a subscriber number (SN) segment, wherein the SN segment is the rightmost segment.

41. A portable electronic device comprising:

receive logic to receive a number;

logic to generate an index containing a plurality of abridged numbers, said abridged numbers containing only a rightmost portion of numbers stored in a directory of numbers within the portable electronic device, the index further comprising a mechanism to associated the abridged numbers with a corresponding number in the directory;

logic for comparing the received number with the plurality of abridged numbers.